

REMARKS

This paper is respectfully submitted in response to the final Office Action mailed December 24, 2002 in the above-identified application. Claims 1, 2, 6-7, and 10-13 are currently pending in the application. Claims 8 and 9 have been canceled and rewritten as new Claims 10 and 11, respectively. New Claims 12-13 have been added to further claim the invention. Claim 1 has been amended as is further discussed below.

Claim 1 has been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 2,706,833 (Doherty). The Examiner alleges that Doherty discloses an article of vulcanized rubber in which two pieces of rubber mix come together in a lap joint by virtue of the edge of an inlay which defines an oscillatory line, and that Doherty meets the limitations of the present invention (Official Action, p. 2, paragraph 2).

However, it is respectfully submitted that Claim 1 is not anticipated by Doherty. Claim 1 has been amended to expressly recite a "tire made of vulcanized rubber..." (emphasis added). It is respectfully submitted that the amendment is supported throughout the specification as originally filed (*see* Specification, ¶ [0008]) and therefore does not constitute new matter. In contrast, the article of vulcanized rubber described by Doherty is directed to a boot. Nowhere does Doherty suggest or disclose a tire of vulcanized rubber.

In view of the foregoing, it is respectfully submitted that Claim 1 is not anticipated by Doherty. Withdrawal of the rejection under 35 U.S.C. § 102(b) of Claim 1 as anticipated by Doherty is respectfully requested.

Claims 1, 2 and 6 have been rejected under 35 U.S.C. § 102(b) as anticipated by, or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,538,059

(Brayer). The Examiner alleges that Brayer discloses a tire including rim flange support rubbers modeled to or overlapping with the lower sidewall. The Examiner further alleges that an oscillatory line is formed by virtue of the repeating pattern of void areas. The Examiner concludes that Brayer anticipates the invention claimed in Claims 1, 2 and 6, or that it would have been obvious to prepare a rubber tire having two rubber mixes of different composition and properties on the basis of the teachings of Brayer to obtain the invention claimed in Claims 1, 2 and 6 (Official Action, p. 2, paragraph 3).

It is respectfully submitted that Claims 1, 2 and 6 are neither anticipated by nor obvious over Brayer. Claim 1 expressly recites that "at least one edge of at least one of the two mixes is superimposed over the other of the two mixes." In contrast, Brayer teaches a tire having a plurality of independent rubber sections 18A, each of which has an edge which is rectilinear. Brayer does not teach or suggest that the rubber sections form a layer, contrary to the Examiner's statement on page 2, paragraph 3 of the Official Action. Accordingly, one skilled in the art would not be motivated to obtain the tire of the present invention, which requires that at least one edge of one mix be superimposed over the other mix, based on the teachings of Brayer, which teaches a tire having a plurality of independent rubber sections having a rectilinear edge and which do not form a layer.

In view of the foregoing, it is respectfully submitted that Claim 1 (and Claims 2 and 6 ultimately dependent thereon) is neither anticipated by nor obvious over Brayer. Withdrawal of the rejection of Claims 1, 2 and 6 under 35 U.S.C. § 102(b) as anticipated by, or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Brayer is respectfully requested.

Claims 1, 2, 6 and 7 have been rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 2,789,616 (Cuthbertson et al.), JP 53 146 779 (Mitsubishi) or JP 62 6801 (Bridgestone). The Examiner alleges that Cuthbertson et al. discloses a tire including rubbers that are lap jointed and that one layer has an edge that ends in an oscillatory trace line in the plane of the joint. The Examiner relies especially on line 19 in Figure 4 of Cuthbertson et al. for the proposition that Cuthbertson et al. teaches an edge that ends in an oscillatory trace line (Official Action, p. 4, ¶ 4, lines 4-6). The Examiner also alleges that Mitsubishi discloses a tire having different color rubbers that are apparently lap jointed. The Examiner relies especially on layers 1 and 2 in Figure 2 of Mitsubishi for the proposition that Mitsubishi teaches an edge that ends in an oscillatory trace line (Official Action, p. 4, ¶ 4, lines 14-17). The Examiner also alleges that Bridgestone discloses a tire having overlapping rubbers. The Examiner relies on Figures 5-6 of Bridgestone for the proposition that Bridgestone teaches an edge that ends in an oscillatory trace line (Official Action, p. 4, ¶ 4, lines 18-20).

However, it is respectfully submitted that Claims 1, 2, 6 and 7 are not anticipated by Cuthbertson et al., Mitsubishi, or Bridgestone. Claim 1 expressly recites "an end with an oscillatory trace-line in the plane of the joint." In contrast, Cuthbertson et al. is directed to a method of forming the sidewall of a tire which includes obtaining an even, regular externally visible line of juncture between the two colored stocks (Col. 2, lines 1-3) (emphasis added). In fact, Cuthbertson et al. teaches that the sidewall is then buffed or ground down to remove any irregular line obtained during the molding (Col. 3, lines 59-64), and that "this removal of the overlapping dark stock automatically forms an even, regular and sharply externally visible line of juncture..." (Col. 3, line 73 – Col. 4, line 2) (emphasis added). Accordingly, Cuthbertson et al.

teaches that any irregular line such as 19 in Figure 4 is undesirable and further teaches the removal of such a line. It is therefore clear that Cuthbertson et al. failed to recognize that the sidewall prior to removal of the oscillatory line was a new invention, and that therefore Cuthbertson et al. does not anticipate the present invention. *See Heard v. Burton*, 333 F.2d 239, 241-43 (C.C.P.A. 1964).

Mitsubishi, like Cuthbertson et al., teaches that the tread concave parts are cut with proper tools to expose regularly continuous patterns (*see* Patent Abstract of Mitsubishi, second paragraph) (emphasis added). It is respectfully submitted that the procedure described in Mitsubishi is similar to the procedure in Cuthbertson et al., and therefore, like Cuthbertson et al., results in a regular line which is not an oscillatory trace-line in the plane of the joint. Accordingly, Mitsubishi, like Cuthbertson et al., fails to teach or suggest an oscillatory trace-line in the plane of the joint, as required by the present invention.

Bridgestone likewise fails to teach or suggest an oscillatory trace-line in the plane of the joint. Bridgestone teaches incisions 9 which are only provided on the shoulder rib, as shown in Figures 5 and 6, and are not in the plane of the joint. Furthermore, the incisions of Figures 5-6 of Bridgestone et al., just like line 19 of Figure 4 of Cuthbertson et al., are made during molding and are not present on the tread at the time of manufacture.

In view of the foregoing, it is respectfully submitted that Claim 1 (and Claims 2, 6 and 7 ultimately dependent thereon) is not anticipated by Cuthbertson et al., Mitsubishi, or Bridgestone. Withdrawal of the rejection under 35 U.S.C. § 102(b) of Claims 1, 2, 6 and 7 as anticipated by Cuthbertson et al., Mitsubishi, or Bridgestone is respectfully requested.

Claims 8 and 9 would be allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claims (Official Action, p. 4, lines 1-3). Accordingly, Claims 8 and 9 have been canceled and new Claims 10 and 11 have been added. New Claim 10 corresponds to now canceled Claim 8 written in independent form. New Claim 11 corresponds to now canceled Claim 9 and depends on new Claim 10. It is respectfully submitted that new Claims 10 and 11 do not constitute new matter.

New Claims 12-13 have been added to further claim the invention. New Claim 12 is analogous to Claim 1 and is directed to a tire component. It is respectfully submitted that New Claim 12 is supported by the specification as originally filed (*see, e.g.*, ¶ [0008] of the specification) and therefore does not constitute new matter. New Claim 13 depends on new Claim 12 and recites that the tire component is a tread band. It is respectfully submitted that New Claim 13 is supported by the specification as originally filed (*see, e.g.*, ¶ [0008] of the specification) and therefore does not constitute new matter.

Attached hereto is a marked up version of the changes made to the claims and the specification by the current amendment. The attached page is captioned "**Version With Markings to Show Changes Made.**"


Conclusion

In view of the foregoing amendments and remarks, reconsideration and allowance of Claims 1, 2 6-7 and 10-13 are respectfully requested.

Applicant authorizes the Commissioner to charge payment of any fees associated with this communication or credit any overpayment to Deposit Account 02-4377. Duplicate copies of this sheet are enclosed.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE**In the Claims:**

Claims 8 and 9 have been canceled.

Claim 1 has been amended as follows:

1. (Twice Amended) [An article] A tire made of vulcanized rubber of at least two rubber mixes of different composition and properties, the said two mixes forming a lap joint in which at least one edge of at least one of the two mixes is superimposed over the other of the two mixes and has an end with an oscillatory trace-line in the plane of the joint, said at least one of the two mixes being free of reinforcement cords.

The following new claims have been added:

10. (New) A tire made of several vulcanized rubber mixes, characterized in that at least one lap joint between two mixes is made by overlapping an edge of one of the mixes over the other mix, said one of the mixes being free of reinforcement cords, wherein said one edge overlays an edge of the other mix and said one edge or both of said edges have an end with an oscillatory trace-line, and wherein the two mixes include a mix for a tread of the tire and a mix for a sidewall of the tire and the two mixes define a junction emerging on an outer wall of the tire, wherein at the junction an edge of the tread has a portion with decreasing thickness extended by a portion of constant thickness equal to at most 2 mm, the portion of constant thickness ending in an oscillatory trace-line.

11. (New) The tire of Claim 10, wherein the trace-line has an amplitude between 3 mm and 15 mm and a wavelength between 0.1% and 2.0% of the circumferential extension of the said tire measured in the equatorial plane.

12. (New) A tire component made of vulcanized rubber of at least two rubber mixes of different composition and properties, the said two mixes forming a lap joint in which at least one edge of at least one of the two mixes is superimposed over the other of the two mixes and has an end with an oscillatory trace-line in the plane of the joint, said at least one of the two mixes being free of reinforcement cords.

13. (New) The tire component of Claim 12, wherein the tire component is a tread band.